INTERVIEW WITH ART HAWKINS

BY MARK MADISON

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MR. MADISON: This is Mark Madison, the Fish and Wildlife Service Historian at NCTC in Shepherdstown, WV on March 9, 2000. I am here with Art Hawkins, a former Fish and Wildlife Service employee. He has agreed to do an oral history with us. I am going to turn it over to Art, who has some notes.

MR. HAWKINS: Yes, Mark. I will start with my birth date, which was June 15, 1913. I was born in Batavia, New York, which is between Buffalo and Rochester. I lived in a small town that had quick access to the country. As a matter of fact, it was only two or three blocks away from where we lived, so it was almost like living out in the country, but, not quite. My cruising radius was limited to how far I could get with a bike, or on foot, and still meet such obligations as going to school and running my paper route. We never owned a car in my family. We never really needed one. My Dad could walk to work, and shopping was easily done in those days with, in our case, three or four groceries within easy walking distance. We could also order, and have things delivered, free of charge. The milkman delivered to the house, and so did the iceman. My father came from England at age eight.

He was good at athletics. He played semi-pro baseball. He never hunted, and only fished once or twice to my knowledge. My mother grew up in a rural atmosphere, but without hunters in the family. My grandfather had hunted some in England, possibly as a poacher, and he gave me my first gun. It was a single barrel, Lefevre, twelve-gauge hammerless. My first game shot, as I recall, was a woodcock. By then I had an English pointer named "Pep". Together, one evening, we went hunting in a patch of aspens and hawthornes, after one of my newspaper customers told me about seeing some strange looking long-billed birds behind of their place. I recall shooting my first woodcock with a 30-inch, full choke, twelve-gauge gun using number four shot, which of course isn't exactly what is recommended. Another customer, named Fannie Brunson was a typical little old lady in tennis shoes, and whenever I stopped to collect for the newspaper she would show me pictures from the *Reed's Bird Guide.* I then bought a copy. One Sunday that must have been in May I went for a hike, and stumbled into a wave of migrating warblers. By then my Mother had given me a pair of "two power" opera glasses. It was really an awakening to me, to see this array of warblers, and identifying them, one by one, in my bird book. I have been a "birder" ever since. Meanwhile, I went fishing and camping at every opportunity. The place where we did most of our fishing was about five miles away. We would peddle out there on our bicycles almost every evening. We went to a place called "Godfrey's Pond". As a matter of fact, after school was out, Ernie Haus and I put a tent there, and had it there all summer. We didn't have to worry so much about people stealing things in those days. In the fall, I ran a trap-line before school. During Christmas vacation my first year at Cornell (1931), I trapped muskrats

with Arnold Keller. He was a taxidermist and a hunter, fisher and trapper sharing some of his skills with me. One of the most memorable school days I can recall was the day that the school closed during an ice storm. Arnold called to say that he and Mark Salway, the local game warden, were going out to feed the pheasants, and "would you like to join us?" "Would I, you bet I would"! We threw food, shelled corn, along some county roads for the pheasants because their food plants were covered with ice. When the time came to go to college, I enrolled at Cornell University's Forestry School, which was closest to where my interest lay, and the tuition was free. In those days there was no game management program, or anything approaching it, except what you could pick up incidentally in Biology. At the end of my second year at Cornell, the Forestry School was moved to Syracuse, and by then, I was aware that Cornell had perhaps the strongest teaching staff in the country in courses of field biology, so I changed to that curriculum. This was perhaps the wisest decision ever made by me up to that time. It opened the door that lead to Wisconsin and to Aldo Leopold.

Cornell provided some unique opportunities beyond course work. Under the NYA program, which was the National Youth Administration during the 1930s, I worked under Dr. Bill Hamilton on various mammal projects, for which I was paid fifty cents per hour. On weekend and holidays, I worked on a major grouse research project, based at Connecticut Hill, which is near Ithaca. The summer after graduation in 1934, I had my first real job, with the New York state Conservation Department, working in a lake and stream survey of the Mohawk-Hudson watershed. The summer before, I had helped

conduct a biological survey of the Tionesta forest in Pennsylvania. My big moment came in November of 1934 after I had returned to Cornell to work on my "MS" under Dr. Embody, in fisheries. One day, another advisor, Dr. Arthur Allen, called me into his office. He had just received a letter from a new professor of game management at the University of Wisconsin named Aldo Leopold. He asked if Dr. Allen had a student who would be interested in conducting a quail study. The quail population had spread, over the past two or three years, in Wisconsin, way outside of its usual range, sometimes called irruption, due to a series of mild winters. He needed a graduate student who could follow some sample populations and see what happened. He would provide a handsome stipend of sixty dollars a month for me, with travel, as I pursued an advanced degree. Times were hard in the 1930s, and I was running low on funds, so the proposal sounded good, and I applied for the job. Leopold asked for one of my publications, but at the time, I had none, so I sent him a term paper on the general subject of conservation, in my handwriting. Professor Leopold must have been in a real bind for a student, because he accepted me. I loaded up my secondhand Ford Model A Coupe, with all of my worldly possessions, and right after Christmas, headed west over the narrow icy roads, arriving in Madison on New Year's Day of 1935, and was taken in by the Emlins, the only people I knew out there. John Emlin and I had roomed together at Cornell the spring before. He had taken his PhD., married that June, and moved to Madison to work with Leopold on a government program dealing with sub-marginal lands. Johnny was based at the New Soils building where Leopold was based. The next morning he directed me to Leopold's office, where I met Vivian Horn, Leopold's secretary. Promptly at 8:30 Leopold's office door

opened and I met my new boss, who welcomed me into his office as if I were some dignitary. His desk was clear, and he left instructions with Miss Horn, not to be interrupted. He outlined the quail situation, and what he hoped to learn about it. I am sure that he learned a lot about me from my answers to his questions, put in such an informal and friendly way. At noon, he insisted that I go home with him to lunch, and to meet some of his family. I expected to go outside and jump into the car. But instead, we walked a mile to his house, as was his practice. After lunch, he excused himself for a short nap, while I chatted with Mrs. Leopold, and their daughters, Nina and Estella. We walked back to the office where I was dismissed to get ready to start my fieldwork, because time was wasting. This all happened on January 2, 1935, and it made a tremendous impression on me. This impression never changed with respect to how friendly Leopold was to people he met regardless of their status. Ten days after our meeting Leopold had his 48th birthday. He took the next day off to visit his friend Ed Ochsner at Prairie du Sac and together they took a drive along some rural roads familiar to Ed. They spotted a worn out farm with only a chicken house still standing, and before long it became known as "the Shack", now known as the Mecca for conservationists, worldwide. I established five quail study areas that winter. One of them was in Coon Valley, in southwestern Wisconsin, which was the first Soil Erosion Service demonstration area in the country. This project combined forestry, agriculture practices and wildlife management.

MR. MADISON: I think he wrote about that. Didn't Leopold reference Coon Valley?

MR. HAWKINS: Yes. My northernmost study area, the upper fringe of the quail range at that time, was based at Babcock, near a C.C.C. [Civilian Conservation Corps] camp in central Wisconsin. The other three areas that I chose to work on quail were closer to Madison. One of them was Paul Errington's quail study area at Prairie du Sac. Riley, and Faville Grove, both near Madison, were the other two areas. I spent one of the early weeks after I arrived in Wisconsin working with Franklin Schmidt. We worked on banding prairie chickens near where the Hammerstroms later set up their long-term prairie chicken study. Before we got well into the study however, weather conditions ended the quail irruption, and my assignment changed. Professor Leopold decided that I could better spend my time becoming manager of the Faville Grove Wildlife Experimental Station, a training ground for new Leopold students, some of whom, including me, conducted their research there.

MR. MADISON: How did you enter the Service?

MR. HAWKINS: After I got my degree under Leopold in Wisconsin, I got a job with the Illinois Natural History Survey. I worked there for four years before going into the military for another four and a half years. By then I was thinking about leaving the Illinois Natural History Survey, and going into the Fish and Wildlife Service, for an opportunity to study ducks in Canada, which I wanted to do. When I got out of the military, Leopold insisted that I share his very limited office space at 424 University

Farm Place, the building in which his whole department was housed. He didn't charge the government anything for having me housed there.

MR. MADISON: Great!

MR. HAWKINS: My part there was to help out with some of the students. I participated in seminars and also worked with some of the grad students who were going into the waterfowl field. At times when he was called out of town unexpectedly, I took over some of his classes for him. I had three years with Leopold before he finally died. After that I moved to the Region 3 office in Minneapolis. Although my supervision as a flyway biologist was out of Washington, I was based in Region 3 because it was handy to a lot of good waterfowl activity. I was also spending much of my time in Canada. I actually spent about half the year in Canada during that period. I took my family with me, and we based at Delta Waterfowl Research Station. I worked out from there. We had a plane there, too. I shared time between aerial and ground transects. One of the things I remember most about that period was the wonderful cooperation we had from the Manitoba people. Jerry Malaher was the Game Branch Director at the time, and he was wonderfully cooperative. If it hadn't been for him, I wonder how the whole U.S.-Canadian relations would have ended up, after having gotten off to a shaky start.

MR. MADISON: We did an interview with Morton Smith who had done some flying up in Canada, and he said the same thing.

MR. HAWKINS: It was wonderful cooperation that we had. We took the family up there for eight years, usually arriving at Delta in April, about the time the ducks were just getting there. At this time, we were trying to develop a system for counting ducks on breeding grounds. With a lot of cooperation from Delta Waterfowl research personnel, we established some experimental transects where we compared what we saw on the ground with what the aerial crew counted. We even tried canoe transects, versus aerial transects to get some notion of relative visibility of different species on the ground versus in the air. Then we established a grid system of running transects which followed east-west lines with a width of one-eighth of a mile on either side of the path of the plane. Along these transects we counted all of the ducks that fell on either side of the transect line. This is the same system they use today. Before me, Bob Smith was the Mississippi Flyway Biologist for the Fish and Wildlife Service. He then took up flying. After the war was over, the Service acquired free airplanes from the military, including Stinson L-5's, which were observation planes during the war. Armed with this new way of counting ducks, Bob left for Canada in his plane, while I drove his car. We met at Delta, and started our work together, working closely with the Delta biologists. The following year, Dave Spencer joined us in Manitoba. Dave was probably the most advanced in statistics of any of us. He had taken a course in college, which the rest of us hadn't. He had a copy of Snedacor's book on statistics, and taught us a lot about sampling procedures. This was really the start of a statistical approach there, with the width of the transect one-eighth of a mile, every four miles you advanced you would sample one square mile. Little by little,

we divided the breeding grounds into units based on density of potholes, and the density of the ducks. The sampling frequency differed, in these different units, depending on the relative abundance of water, and duck density. Little by little the whole system evolved. With a few modifications, it is pretty much the same today as it was then. Ground to air comparisons also started early on. In these, one crew would beat out the transects on the ground, and within 24 hours, the aerial crew would count over the same area. You then had a direct comparison with what they saw, with what the ground crew saw. From those figures, you could make adjustments to the duck population count. For example, mallard and canvasbacks were very visible compared to teal. You might have a correction factor of less than two for mallards or canvasbacks, but it could be as high as fifteen for green winged teal. You had to take visibility differences into consideration in order to come up with reasonably reliable figures. Ground-air comparisons are still being made every year. They automatically adjust for differences in observer abilities. You can't use a "constant" from year to year because the visibility changes depending on whether or not the aspen leaves have come out, and a whole lot of things like that. You have to make this correction on an annual basis.

MR. MADISON: All right.

MR. HAWKINS: So, anyway at that early time, we were very much in the banding mode too. We were trying to establish techniques for catching young ducks. Heavy equipment gradually got better and easier to use, and finally became more efficient than

when we first started out. We put on some huge drives in some concentration areas where there would be thousands of mostly adult male molting ducks. We were also involved in things such as "die offs" due to things like botulism, and trying to do something about that. We picked up sick ducks, or drove the birds away or whatever seemed most appropriate. In early July, it was time to start surveys again to see how the production was, in relation to breading pairs found in the spring. Late in the season, we were still trying to catch more ducks to get them banded to see what flight lanes they were taking out of Canada into the States, and also to see what flyways they affected most. We were kept very busy, right up to the beginning of the hunting season. During the hunting season, I usually went up to the Pas area of Manitoba, and started checking ducks and geese that were taken by hunters, to obtain information on species shot, and to get an idea of what the age ratio was. This was to see how many young ducks were being produced and shot. My family and I remained in Canada until the opening of the hunting season in the States. Then I would return home leaving my family there, and would work as a flyway biologist through all the states of the Mississippi Flyway. I tried to time it so that I would hit each state at about the beginning of the hunting season. At that time, Patuxent was working on a method of collecting wings, and determining what the age ratio was from the wing samples. At first, we weren't able to age the birds. We went through a series of years, checking techniques to determine the age of the birds by their wing patterns. We finally became confident about obtaining actual figures on success rates by species for any given year.

MR. MADISON: Lets take a break.

MR. MADISON: You obviously met some interesting characters. Are there any interesting incidents or colleagues that stick in your mind looking back on your time with the Service?

MR. HAWKINS: It was very interesting to me, meeting some of these people that you have heard about. They were bush pilots, and people of that type. There were Hudson Bay trappers, or Conservation Officers that were up in the far north. These people were all particularly interesting to me. I attended trappers' meetings in The Pas, Manitoba and Kenora, Ontario, and met a lot of the Indian trappers. They ran trap lines in their assigned territories. In the summer, this was also their area to manage. It all worked out very well. I had an opportunity to fly into the far north a few times with some of the crews operating out of Churchill and along the coast of James Bay. One year, (1950) the caribou were very late in their migration. We were up there around the first of July, and ran into a terrific migration of caribou west of Churchill. I have no idea how many. But on both sides of the plane, as far as you could see, there were caribou.

MR. MADISON: Wow! You could see that many?

MR. HAWKINS: I think we were the first to discover the Eskimo Point nesting colony for snow geese. This is now, I suppose, more than flourishing like all the rest! We ran some transects into the far north looking for Whooping Cranes, and we also covered some of the northern Ontario transects. I remember the first time that we tried a recording device. Before that, it was a matter of putting all of your notes down on paper. You would usually have a pad strapped to your knee to write down what you were seeing as you were flying through. Then we heard about a new gadget called a wire recorder. I remember that we outfitted Bob Smith's amphibious plane, a Grumman Widgeon that year, with a wire recorder. We flew a transect from Delta, Manitoba that took us way into Ontario and back, I forget how many hours it was, but it was a long trip. When we got back on the ground and turned on the wire recorder, nothing happened. So, Bob Smith made a few choice remarks about that kind of equipment, turned on the recorder, and his cuss words played back loud and clear but the rest of the wire was blank.

MR. MADISON: It just needed encouragement! [Both laughing]

MR. HAWKINS: Another time, that same year, I flew with Dave Spencer, in the L-5 equipped with a wire recorder. We had it hooked up, and not very far from Delta, smoke started to gather in the cockpit. Dave was a very cool, Navy trained pilot. I remember him saying, "Stand by with fire extinguisher!" That was shortly after WWII and there were a lot of emergency landing fields around Canada. We put down at an emergency field at Neepawa, and it turned out that it wasn't anything serious, except for the smoke.

After that, equipment came along pretty fast. Pretty quickly we had Dictaphones. Johnny Lynch, another Service pilot-biologist operating in Saskatchewan was always right up to date with the latest Dictaphones and other innovations.

MR. MADISON: We have one of the earlier computers. It's an old Epson computer, which was modified. It's in a display now.

MR. HAWKINS: We had some pretty "early stage" equipment in those days. I remember one time we put on a big duck drive at Whitewater Lake in Manitoba. We had a big crew in there. There was one Widgeon that Walt Crissey was running. I think there was a Sea-Bee in there too, plus two airboats. The drive was progressing very well. The birds were coming to the nets and into the traps. About that time Bill Elder was making lead poisoning studies on ducks, and he had a small blind, not very far away from the mouth of the trap. He arrived just at the critical time, as the ducks were hitting the nets. They all went over tops, and the whole drive failed.

MR. MADISON: Art, how long did you work for the Service? How many years?

MR. HAWKINS: Well, thirty years, counting my military time. Plus several extra years on special assignments after retirement.

MR. MADISON: Thirty years?

MR. HAWKINS: Then, after I retired I went back to special assignments for another ten years such as editing the book *Flyways*, back in Canada working with ground to air comparison crews, monitoring the oil spill on Laguna Madre, Texas, attending wing bees and meetings, etc.

MR. MADISON: Were there any changes that struck you the most? I mean, personnel or equipment changes.

MR. HAWKINS: The fellows that worked in Canada were extra special, easy to work with and anxious to do what they could. This was an exciting period in the evolution of management by flyways. Equipment and technique were in the early stages of development. Everything seemed to have that post-World War II vigor.

MR. MADISON: What is the thing that you are most proud of doing in the U. S. Fish and Wildlife Service? What did you feel best about?

MR. HAWKINS: That's a tough question. I guess our pioneer work in Canada with surveys, developing techniques for ageing ducks and working on the book *Flyways* stand out the most. I got the most satisfaction from the Canadian work that I did. After I was a flyway biologist, I became a Flyway Representative. From then on, it was mostly working with the fourteen states in the Mississippi Flyway. I attended "umpteen

thousand" meetings, mostly working with the technical group. We were trying to coordinate projects that involved state personnel doing banding, and that sort of thing. We were also involved with "wing bees" to measure duck production. This was all part of the state/federal coordination. I was always in on the regulations meetings for the whole time that I was in that position. I had the experience of seeing all that happens in making the regulations. Those were usually very satisfying experiences. The Fish and Wildlife Service has mostly dedicated people. A few people involved with flyway management thought the Service was too restrictive. But they didn't understand all the problems regarding relative density of hunters and birds, various conditions, etc. There wasn't a one hundred percent agreement on everything by any means. Generally the northern states, at that time, were very conservative while the southern states were just the opposite. Often times, we ended up in the Mississippi Flyway with a seven to seven tie vote on regulation matters, which was not helpful to the Service in making regulations.

MR. MADISON: Who decided the tiebreaker?

MR. HAWKINS: That was sort of worked out in committee, but at that time the Service usually took a conservative position. In the early years, there was more of direct communication with the front offices than is possible today. We had fewer personnel than there are today. Regulations were always a "hot-button" issue. The central office always needed to be kept advised so that they could answer all of the questions that were

coming in. There was pretty direct communication between the field people and the central office in those early days.

I remember one time in the early years, right after the war, we still had wartime equipment and vehicles. The gasoline in Canada was terrible, and our cars weren't operating properly so we started buying #1, instead of #2 grade gasoline. We immediately got a response from the administrative offices that we had no authority to do that. The difference was maybe five cents at the most. We were only paying forty-nine cents, even up in Canada at the time, for a gallon of gas. It cost much more to send telegrams back and forth. My first summer in Canada, (1946) my car was equipped with wartime re-treads and Canadian roads were in terrible shape. Lyle Sorols from Delta and I took a trip across the Canadian prairies to get better acquainted with the area in which we were working to the Peau River in Alberta. During this several hundred-mile trip, we had twenty flat tires!

MR. MADISON: Let me just ask you one more question, and then we'll stop. Did you notice any cultural differences with how the Canadians did their waterfowl work, or their conservation work, as opposed to American efforts?

MR. HAWKINS: There were some differences I suppose. But I always found the Canadians to be delightful people to work with. They just went out of their way to be cooperative it seemed to me. So I would have nothing but good things to say about

working with the Canadians. It was a pleasure to do it. My whole family looked forward to going up to Canada for the summer. We have made return trips there in just the last few years to renew some old friendships.

MR. MADISON: Do you think that these joint efforts are still going on as often as they did back in those days?

MR. HAWKINS: I started my work in Canada in 1946, and I kind of lost track. And then we were up there three years ago. In 1996 I celebrated my 50th return to the area. I talked to some of our personnel working there at the time, and they talk the same language as we talked fifty years earlier. Those things don't seem to change. The people working there now seem just as well qualified as they did before, even though we've had these big questions in the past couple of years about where all the ducks are. I have no very good answer for that except that the conditions in Canada have changed so much in terms of big reservoirs and feeding areas that bird distribution in place and time may have changed too. We have also had weather patterns that held the birds north for a longer period of time. I think that these changes have something to do with the discrepancy between what people have been seeing and what we have been predicting.

MR. MADISON: Well Art, thank you very, very much. It was a wonderful interview!